Number Nine.

THE OCCASIONAL
NEWSLETTER

OF THE

OLD LOCOMOTIVE

COMMITTEE.

# DID ALLOY TRACK AFFECT RESULTS?

Our second annual tIONSMEET for the award of the OLCO Chairman's Trophy for live-steam model versions of LION and/or TITFIELD THUNDERBOLT doing the most work in a fixed time was held at the very hospitable clubroom and track of the Warrington & District M.E.S.

This kind invitation of the President and Committee of the club to stage the event on the Sunday of the August Bank Holiday weekend had been gratefully accepted by the OLCO Executive Officers.

The elegant grounds of Daresbury Hall provide some tranquility for the spastic children and adults who have their home there and also space for the 1743 ft. of track behind the secluded car-park. The line circles a field, disappears into the woods, passes a lake and then returns to the field by a woodland route.

On a lovely day, such as this was, the setting is delightful.

Guildford M.E.S. had kindly put their famous Dynamometer car at our disposal again, and unlike IMLEC, no attempt was made to measure the consumption of coal and water, simply 'work-done' in ten minutes.

Last year, OLCO member Mike farrott (Loughborough M.E.S) had to retire after 6 mins. 20 secs with a slipping eccentric. For a model started when he was a 14 yr. old schoolboy, and the youngest club member to finish building a steam-engine, the results obtained the allotted time in 2/3rds. prophesied a placing up with the leaders. On the Guildford steel rails he managed 32520 ft/lbs. work done and 4100' run. Yet on the allow track this year he only obtained a further 760 feet in the full 10 minutes and, reducing his load from three adults and a child to two adults and a child only managed 28660 ft/lbs work done. The significance of alloy v. steel can really only be guessed at. Unfortunately it was impossible for drivers who came 2nd., 3rd., 4th. and 5th. last year to attend year or we might have been able to prove something. Sth. place last year went

Sith. place last year went to Michael Bell with a run of 6550' and 47730ft./lbs. work done. This years winner, Dennis Gadsby (Stockport M.R.S.) had a run of 6290' with only 44150ft./lbs. work done. Can alloy rail make that much difference? Nevertheless sincere congratulations to Dennis for doing so well with a very new LIDN.

Last years winner, David Neish with a run of 8270' and 72810 ft./lbs. work done only managed a run of 4550' and 26830 ft./lbs. work done. this year. The alloy track cannot altogether be blamed for this. A leaky tube in the throatplate was hindering his performance somewhat.

WINTER

1986.

There was some speculation that since a local lad won last year a knowledge of the track might be an advantage. This is not so: OLCO member Jim Mercer, who is a regular attender at this, his local club, much to everyones surprise, only came second with a run of 4890' and 37250ft./lbs of work done.

Jim takes pride in being a careful driver and it may take a few more LIONSMEETS to prove that the Trophy is not being won on speed alone.

There may be some significance in considering items like the weight of the engine, No. of boiler tubes, their diameter, size of superheater flues and the number of elements. Again these were not recorded at the time so perhaps OLCO should start making tables of such details.

The hospitality in the Clubhouse was, like the weather magnificent. OLCO members are most grateful to Mike Ivinson, the Secretary and the club members for a memorable weekend and providing facilities

for a number of very interesting LION models which are still under construction to be displayed.

As we all know 1988, the 150th. Birthday of LION, will be a big year for OLCO and the support of anyone who has or is building a model of her is going to be essential.

We still need a lot more of the support we know we can get. Plans are now well advanced for LION to be steamed again by way of celebration, and it is hoped that a really big LIONSMEET is to be held to mark the occasion.

Next year will be the last one before this major one in 1988.

We think the 1987 LIONSMEET is likely to be at Dinting on the day after the A.G.M.

LION should be there and stripped down for essential repairs. It is unlikely that such an overhaul will occur again before the Bi-centenary in 2038. The opportunity to access the Repair shop to inspect and photograph those parts which are normally hidden will have to be confined to paid-up members of

OLCO.

Please keep Sat.29th. and Sun.
30th.August 1987 free for our

third LIONSMEET.

#### TABLE OF RESULTS

NAME	WORK-DONE	ft/lbs.	DISTANCE RUN.	LOAD plus Dvr.
DENNIS GAI	DSBY	44150	6290	2 Adult
JIM MERCER	₹	37250	4890	2 A + Child
MIKE PARRO	TTC	28660	<b>48</b> 60 ′	3 A + Child
DAVID NEIS	5H	26830	<b>4</b> 550 ′	2 Adult



"ULCO" Chairman E.F.Clark

presenting the LIONSMEET Trophy to Dennis Gadsby, this years winner.

Chairman, My Lord Mayor, Lady Mayoress, Honoured Guests, Ladies and Gentlemen. May I first, Mr. Chairman, support your remarks in congratulating Kitson College on its Silver Jubilee and in thanking the Kitson family, past and present for all the support they have given to technical and vocational training, not only here in Leeds, but indeed throughout the country.

But in spite of all that has been done in the past, in spite of the fact that at one time Britain was the Workshop of the world, when, "Made in Britain" was the seal of perfection, in spite of all those things, I don't think it is an exaggeration to say that Britain is fast losing its right to be classed as one of the major industrialised nations of the world. Now there are many reasons for this - time won't permit us to go into it but we know that two world wars, resulting in the loss of Empire, with all the accessibility to cheap raw materials and cheap labour. We know also of an educational system that sought to equip the best brains to run that Empire and indeed to some extent still thinks that the diplomatic corps and the higher grades of civil service are much more preferable to a degree in the sciences. And for all these reasons we are losing out, and it's as well that we face up to that fact.

Now there are two broad kinds of education. That type of education and training which permits us, assists us to earn our living, to manufacture the things that we need, and that type of education and training which helps us to enjoy a fuller and happier life. In any remarks that I may make tonight I don't want to contrast one against the other or to say that one should be given necessarily, a priority over the other, they are both essential. I am probably in a minority in an audience like this. I wish I'd had the type of education that allowed me to appreciate the literature and the arts and the music and all the other things that that type of education bred, as I said, in a fuller and happier life. But we also know that technology is growing at such a rate, and at such a pace, that it will no longer be possible, as in my day, for the boy or a girl to enter industry and say that one type of training will be there for the rest of his or her industrial life. So great is the pace of technology that in the course of one's life there will be the necessity or training and retraining probably two or three times over in the course of one's industrial life.

Consider what used to be the situation in the craftsmen After sphere of training. seven years, eventually reduced to four, no matter how unable a boy or girl was to assimilate the training given, no matter how asinine the trainers were in their inability to convey the training techniques to the boys and girls, and no matter how inadequate the equipment for that training, at the end of seven or subsequently four years providing the employer was prepared to pay the rate and the trade union give a card, the boy or girl was classed as a skilled It reminds me of the tale (indeed I intended it should), of the plumber working in a very draughty passage by candlelight, and the draught kept blowing the candle over and it kept going out, and the apprentice kept lighting it and standing it up, only for it to be blown over again, and finally the craftsman said, "Come here son", and he lit the candle and he let the wax drop to the floor. then he stuck the candle in the melted wax and of course the candle stayed upright. "Marvellous", said the boy.
"Yes", said the craftsman, "Don't tell your mates. shouldn't show you that until you're out of your time".

That used to be the situation there was a vested interest in keeping the craft to oneself. There was indeed the old adage that you really only started to learn your craft or trade when you were out of your time, not during your apprenticeship most of that was spent running errands or brewing tea. Now those are somewhat of an exaggeration, and many firms undertook really first class training, but it was the 1964 Act, the advent of the Training Board and all that flowed from it, that really set the seal on the type of training that we need. I'm sorry that so many training boards have subsequently gone by the board, but it remains that fact that that type of training really was the basis of the beginning of a realisation as to how vital training was. But of course that has now changed, what we are getting now and I am glad that both sides of industry are agreeing to it - is what all other callings and professions have, namely that a person's status should be given in accordance with the standards reached, and the sooner the boy or girl reaches those standards, the sooner will the status, and hopefully the pay, go with it; and I'm pleased that new development has taken place. But it also must mean a basic change in our education or at least in our educational emphasis. No longer must it be reactionary to talk in terms of learning the three 'R's'. I can tell you quite frankly the experience we had at the Training Board when ONGE we recruited through our scholarship schemes boys that were literally unemployable. We asked them to divide 5 by 2 and they couldn't, yet within three months, when we had explained the fundamentals of the vernier and the micrometer, they said, almost in awe, "Thats what Mathematics is all about". As soon as they could see a practical application the situation was different in so many cases. But perhaps also we have to recognise that in the Universities to say that a professional degree in engineering or science or biochemistry must no longer be looked on as being somehow infinitely

inferior to a degree in the classics, or in the humanities. I believe this change is coming, but it is rather too slowly for the challenge that faces us in Pr'tain.

And last, but by no means least, there must be a considerable extension, indeed it is already taking place, of co-operation between educationalists and industri -lists. I don't know whether you can see my tie, but the word "tie" is written on it. Even 3 thick trade union official knows it's a tie but does not know it stands for the "Twinning of Industry and Education" organisation which is growing, and which of necessity must grow if we are to conquer the problems with which we are faced. Now having said all that I have said, I am not trying to pretend to you that all these things are an end in themselves, they must only be a means to an end. I don't know how you see it when one talks of "wealth creation". I know in my book what it means. It means that if we want rising living standards, if we want more hospitals, if we want better education for our children, if we want roads and care of the sick and the aged, we can only have these things on the basis that we produce the goods to pay for them and colleges like this and like many others throughout the country, are playing their parts in that process; for without that wealth creation we are not going to have the things that any form of society whether it be a free enterprise society, a socialist society or a mixed economy, must surely try and strive to achieve. Now you may think I've been pessimistic, and to some extent it is not a pleasant picture, but let's look at the other side. Quite frankly we must be the secret envy of all our industrial competitors. Consider for a moment what is going for us. Name any modern invention. Carbon fibres; fibre optics; supersonic civil flight (as in Concorde); hovercraft - you name it, we've invented it.

continued on page 3.



Jim, together with Peter Bell and their models of LION were busy 'in

## Text of Address by Lord Scanlon $continued\ {\it from\ page\ 2.}$

Other people have often exploited it. Consider also what we have got, what wonderful indigenous wealth within these shores, an island built of coal, floating on seas of oil and natural gas, surrounded by plentiful supplies of fish, and we're about the only nation in the world that can create a shortage of all four at the same time. Yet if only we could apply brains to that wonderful form of wealth that we already have, what a truly great nation we could be. But wealth is not digging up gold in South Africa and burying it in Fort Knox. Wealth is the application of brains and hands to sources of raw material. It's the only way true wealth can be created and it's to that end that colleges and universities must give their efforts in the future. I want to praise all those who are participating in colleges like this because they recognise the need and because of the efforts they make and the effect that such efforts will ultimately have, I would like to conclude on this note.

This is the challenge. Let's get rid of the idea that industry is somehow dirty and scrag bound. Yes we had our share of both, but the new technologies have developed away from that and, if I may say so, I've got the feeling also that this idea of perpetual confrontation is losing steam, and more and more it is becoming recognised that educationalists and trade unionists and industrialists must get together if we are going to make up the leeway that exists between ourselves and our industrial competitors. Yes, industry can be exciting. It can be challenging, it can be interesting and I believe that the youth of today, encouraged by the colleges such as this will meet that challenge, and that's why it has been a pleasure for me to come here to say these few words to you, to congratulate the staff and all that are involved in the work of the college and wish you well in your future endeavours.

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## Lionsheart

1986 has been a most remakable year. Far and away beyond any-thing envisaged at the inaugural meeting in 1984.

As an organisation OLCO has had one major weekend activity every single month since April.

Late in August, The Chairman, together with the Hon.Secretary, Membership Secy., Hon.Treas., and the Editor of LIONSHEART met together at Dinting.

We both of us agreed that in order to lighten the load a bit in 1987 and give the OLCO teams some time to recover before the Great Events of 1988 that the A.G.M., Dinner and LIONSMEET could be held during the same weekend.

With our annual 'Get-together' at Wroughton a fortnight later that would probably be enough major activity for the Year.

We had not reckoned on the Grand Junction Railway sesquicentenary in 1987. (See page 7).

As far as we are aware, LION is the only surviving engine to have actually run on G.J.R. metals before they passed into L & N.W.R. ownership. We must therefore be prepared for a major effort at Crewe between the 4th, and 11th, July 1987.

This could well involve the Costume Group in their first real outing before 1988.

The Guildford Open Days will fall on the following weekend. However in view of the probable scale of the G.J.R. event it rather looks as if next July will test all our resources to the limit.

In fact we may well need a presence at Crewe for the best part of a fortnight and it will be with some regret that we shall have, to forgo the marvellous, hospitality that the Guildford M.E.S always extend to us.

The most likely venue for the next LIONSMEET in 1987 is now thought to be Dinting. August Bank Holiday Sunday being the traditional date for this event. The Dinner and A.G.M. is planned for the Saturday of the same weekend.

LION may well be there at the same time and be dismantled sufficiently enough to allow photography of those parts other cameras cannot reach.

Additional activities during the year will probably begin in February. The weekend of the 14th./15th. in either Liverpool or Crosby, will be the Merchant Taylors School Model Railway Exhibition.

Our static display of models at the Merseyside M.R.C on the 24th./25th./26th. Oct. attracted so much attention that we received an instant invitation. To exhibit so soon again on LIDN's home ground is quite an accolade and your Hon.Sec. is very grateful to those members living locally who have volunteered to fly the OLCO flag on behalf of us all.

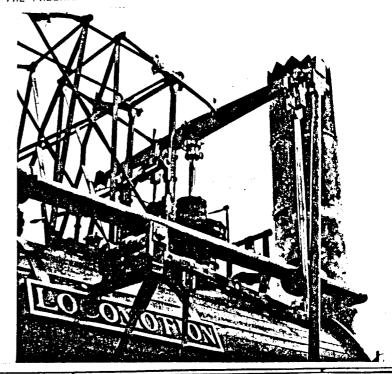
The weekend this year was 'interesting' for many reasons. Nearly half the Membership turned up on the most appalling of rainy Saturdays. In fact the worst day for weather that we had had for months. It says a great deal for the 'OLCO' spirit that, in spite of having to sit for most of the afternoon ankle deep in the mud we had all carried into the combined tents of the ever patient Bob and Jean Grimshaw and Ted and Mary Jolliffe, we persevered with the Barbeque!

The scene is not easy to describe because it is very difficult to believe that it ever happened. Photographs do however exist to prove that it did, and LIONSHEART will publish them when they can be found. There was an educational value inasmuch that with some seven or eight charcoal burning devices roaring away in tandem and barely sheltered from the wind and driving rain we must have managed a very close simulation of conditions on the footplate an early locomotive crossing Chat Moss in the late 1830's early 1840's.

Sunday was a bright clear and sunny day. We managed to put on a good show of models and posters in the marquee that had been erected for the club stands. A good deal of interest was generated in OLCO but we could do with a regular Exhibitions Manager and some lighting in the showcase. Our efforts generally stewarding LOCOMOTION and rostering Guards for the train were greatly appreciated and had it not been for the bad weather on the previous day we might have got a chance then to stand on the very narrow shelf which passes for the footplate of that engine. However with all that Freemantle motion whanging about there is very little room for the driver, let alone an observer, and with the public present it would have been foolhardy to have made the attemot.

There were several very good opportunities for firing and these were enjoyed to the full. All in all a weekend not to be missed in spite of the wind, rain and lack of hot bathwater for certain key members of the Executive. (NOT the Hon.Sec. one might hasten to add. He and his family got theirs and sincerly apologise for unwittingly being the cause of the disaster/) Some of our members even managed to hitch a lift round the Airfield in a steam-car. Steam seems to be a much nicer motive power than petrol. Pitv it is so inconvenient by comparison.

We are fairly certain that LION will be back at Wroughton in 1988 and as yet have no idea what is planned for 1987. It would be nice to see either CORNWALL or the first piston valved locomotive BELLEROPHON belonging to the Vintage Carriages Trust (of which more anon) and presently running on the K.& W.V. Rly.



In response to many requests to create a bibliography of the literature on LION here is the first of the listings. With the exception of about five scarce ones these are all in the OLCO archive. There are a few duplicates available for disposal to members on a (first-come' basis.

LBSC's "TITFIELD THUNDERBOLT"

Articles and References in Model Engineer.						
DATE:	: VOL/MAG.No./PAGES		ARTICLE No./SUBJECT			
16/04/53	108/2708	469		The Titfield Thunderbolt		
11/06/53	108/2716	698-701	1.	FRAMES		
02/07/53	109/2719	2-5 &8		MOTION PLATE - WHEELS		
23/07/53	109/2722	95-99		CRANKS - RODS - SFRINGS		
13/08/53	109/2725	186-190		CYLINDERS		
20/08/53	109/2727	224-6/232		SLIDE VALVES		
10/09/53	109/2729	311-315		CROSS HEADS - CON RODS		
01/10/53	109/2732	403-5/409		FEED PUMPS		
22/10/53	109/2735	492-495		EXCENTRICS		
12/11/53	109/2738	578-582		GAB GEAR		
03/12/53	109/2741	656-97662	10.	REVERSING SHAFT - LINKS		
17/12/53	109/2743	726		Letter from M.H.COX.		
24/12/53	109/2744	758-762	11.	GEAR LEVER - LUBRICATOR		
14/01/54	110/2747	28-31%34	• ~	noti en		
_	110/2/4/	124-7/131				
04/02/54	110/2/51	160	10.	ROILER 5" GAUGE Letter from R.F.J.POUNDS.		
11/02/54 25/02/54	110/2/51	214-217	1.4	BOILER TUBES		
	110/2/56	291~3/296				
18/03/54				DOME - LUBRICATOR (3.5"G)		
08/04/54	110/2759	381-3/392		BLOWER - BOILER STAYS		
29/04/54	110/2762	470-2-474		SMOKEBOX - CHIMNEY		
20/05/54	110/2765	551-553		REGULATOR - SUPERHEATER		
10/06/54	110/2768	653-656	19.	"REGULATOR 5"G. VERSION"		
01/07/54	111/2771	16-18420	20.	"SAFETY VALVES"		
22/07/54	111/2774	<b>9</b> B-100	21.	"BOILER FITTINGS"		
12/08/54	111/2777	<b>198</b> -0/203	22.	"BOILER DETAILS"		
02/09/54	111/2780	274-276	23.	"THE PLUMBING JOB"		
23/09/54	111/2783	358-360	24.	"INJECTOR- HANDPUMP CLACK"		
14/10/54	111/2786	450-452	25.	"FINISHING TOUCHES"		
04/11/54	111/2789	534-6/544	26.	"DETAILS OF THE TENDER"		
25/11/54	111/2792	630-633	27.	"HORNS, A/BOXES 5"TENDER"		
23/12/54	111/2795	744-747	28.	"TENDER BRAKE GEAR"		
30/12/54	111/2795	759		L.B.PARKIN'S "LION"		
15/05/58	118/2973	638-641		LION IS BORN" F.FEW.		
02/10/70	136/3402			DEL "LION" L.A.SAXBY.		
21/12/73	139/3479	1222-24		ODIFICATIONS" L.A.SAXBY.		
06/07/79	145/3612	784-787	"LI	UBRICATOR" D.A. NEISH.		
01/04/83	150/3702	430		tter from N.SMITH.		
20/05/83	150/3705	620-621		tter from C.E.TAYLOR-NOBBS.		
17/06/83	150/3707	714-718	"M	ODIFICATIONS" K.C.MILLER.		
01/07/83	151/3708	48	Le	tter from R.F.AUSTIN.		
05/08/83	151/3710	137-139		ISTORICAL NOTES" C.E.T-N.		
21/10/83	151/3715	476		tter from M.SMITHERS.		
17/02/04	1 E 7 / 7 7 7 7	100 107	11.1	TONIC COOLINE V C MILLES		

"LION'S CROWN" K.C.MILLER.

"BOILER ORIGINS" C.E.T-N.

"TENDER ORIGINS" C.E.T-N.

our march on a 187

152/3723 190-193

153/3734 130-132 154/3751 439-442

PAGE

17/02/84

03/08/84

19/04/85

Members building the LBSC "Titfield Thunderbolt in 3.5"G have run into problems with the Gab-gear. A letter Mr.R.F.Austin published in Model Engineer. 1st.July 1983 highlights the problem. The solution offered by OLCO member Doug Rundle is published here for the benefit of other members who may find themselves in a similar predicament.

Titfield Thunderbolt (Lion), Troubles

SIR, - N. Smith (Model Engineer No. 3702) requests information on the gab motion of the Lion, I can assure him that the LBSC drawings of the 31/2 in. gauge are wrong, and as both the 31/2 in. and 5 in. gauge are on the same drawings, I assume the 5 in, gauge is also wrong. Back gear gab will not engage fully due to the top of the back lifting link fouling the bottom of the rocker fork. If these parts are drawn to a large scale to the dimensions shown, then it will be seen that the two pieces will touch before fully engaging. I wrote to you in June 1982 about this and correspondence with Martin Evans followed. It was decided that if, on the back gear gab of the 31/2 in. gauge, the pin hole centre to gab groove centre is increased to 7/32 in., the back gear will engage fully. I assume the same will apply to the 5 in. gauge (with different dimensions) and the motion will run correctly.

It may be of interest that on the 31/2 in. gauge I have noticed the following, a. Position of coupling rods relative to crankshaft is not shown. b. No blast nozzle or blower nozzle details, c. Blast pipe should be inclinded at 5 deg. to the cylinder block. d. Middle top bolt hole in inner frame securing cylinder block (drawing 2) fouls the plugging of the exhaust drilling (from the exhaust port to the blast pipe). These may well apply to the 5 in. gauge. As a beginner I was dismayed to find these and other discrepancies, but am pressing on. R.F. Austin Ipswich. Suffolk

LETTER FROM DOUG RUNDLE.

rou will recall that I wrote to you explaining the difficulties I was encountering building the valve gear of my 31" Titfield Thunderbolt and wondering if anybody else was similarly troubled. I did contact one of the people you named but I don't really think that he believed my findings.

During the last couple of weeks with the darkening of the evenings I decided to get to grips with the problem by laying out twice full size the motion and chassis. I have done this on draughting film to avoid any inaccuracies later on. Unless I am drastically wrong somewhere my suspicions have been confirmed.

Without going into detail I will briefly explain my findings. LBSC's design is , as we all know, not as good as it could be. Len Saxby's solution, useful though it is, in 32" creates further, and I think, more serious problems. (There is I am sure a serious error in his article.) By shortening the eccentric rods, widening the gabs and moving one or two other bits and pieces backwards the valve gear appears to work without clobbering the leading axle.

I am now intending to prove the design by fitting sheet metal mockups of the major components on one side of the engine only. i.e, from the bottom of the reversing lever to the swinging link.

If my information can be of any help to anybody in the same predicament I would be more than willing to explain in detail my findings. I have been given new heart to continue with the project as the amount of rework is minimal.

Incidentally, in order to know what the varios unknown parameters of the valve events are, I have used the Reuleaux valve diagram as explained in Tubal Cain's Model Engineers Handbook.

Best Regards

Tome Purello.

TO NOBLEMEN, GENTLEMEN, SPORTSMEN, AND GUN-MAKERS.

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These extensive Show Rooms and Manufactors, are situate in Chuncu-STREET, in the entitre of the Town, adjoining St. Philip's Church Yard. The Ware Rooms contain the Finished Articles for sale, and are open to all persons of respectability.

The Fac-simile of the celebrated Warwick Vase, of upwards of 21 feet in circumference, was made in metallic Brouze at this Manufactory. The Copper Brouze Statue of His Late Majesty, George the Fourth, upwards of 6 feet in height, was modelled, cast, and sculptured at this Establish-ment: as also a Shield in honour of the Duke or Wellington's Vic-TORIES. These and numerous other Works are stationed in separate Rooms to exhibit the progress of British Art.

Berrants are appointed to conduct Visiters over the different Workshops, to whom and to the Work-people the Visiter is requested to abstain from giving

N.B. Mr. George Richmond Collis is Vice Consul for France, Russia, Spain Portugal, and Turkey, with the privilege of granting Passports to Persons visiting France and its Dominions

ngers of Respectability are permitted to view the Show Rooms and

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FASHIONABLE GOSSAMERS, At 4s. 9d. to 10s.;

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Begs most respectfully to announce to the Nobility, Gentry, and Inhabitants of Birmingham and its Vicinity, that he has, in addition to his Wholesale Establishment, opened a Retail Shop as above, for the purpose of supplying those who may in any way suffer from a defect of sight, with spectacles suited to their various wants. Having been practically engaged in the above business for more than forty years, he trusts that his great experience will enable him to render all the assistance required, so far as glasses, judiciously applied, are capable of affording it.

Spectacles with shades of every description, particularly recommended to persons travelling, or those who are affected with a weakness in the eye, as they completely defend that tender organ from the bright glare of the sun, and are extremely useful either in windy or snowy weather.

Spectacles in tortoiseshell, silver, or blued steel mountings, set with either best Brazilian pebbles, or glasses accurately ground.

with either best Brazilian pebbles, or glasses accurately ground.

Optical Instruments of every Description.

Spectacles of every description expeditionsly and neatly repaired. Pebbles or Glasses set in a few minutes.

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J. G. hopes that the quality of the various articles supplied by him, will, upon a fair trial, ensure him the patronage and support of those who may honour him with their commands.

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the same principle as Mr. A. Clark, and the only one that will ensure ease, articulation, and mastication.

E. G., having undertaken several cases that had been refused by other Dentists as impracticable, can give the most satisfactory References as to the beneficial results of his Practice.

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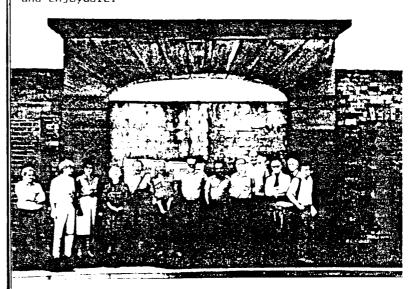
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VARNISH, COLOUR, AND ZINC WORKS, AT ASHTED. N.B. Sole Agents for the Whiston Copper Company. (Mesars. Sneyd, Kinnersley & Co.)

### SECOND'OLCO' A.G.M LEEDS.

THE SUNDAY I.A. VISITS. On the Sunday morning after the 1986 A.G.M. at Armley Mill on the previous day, members had a opportunity to do a practical I.A. tour of Leeds.

Ably led by Ron Redman and Geoff Horsman whose 'slide show' following the formal business of the meeting gave us a very clear foretaste of what we might expect to see. Our thanks once again to both Ron and Geoff and to Ron Fitzgerald and the Staff of the Armley Mill Industrial Museum for making the weekend so memorable and enjoyable.



'OLCO' MEMBERS'OUTSIDE THE MAIN GATES OF THE FOUNDRY WHERE 'LION' WAS PROBABLY BUILT.



VISITS THE FAMOUS KITSON TURNTABLE. NOW DERELICT BUT DUE TO BE DISMANTLED AND RESTORED AT THE ARMLEY MILL INDUSTRIAL MUSEUM.

#### PETER BELL

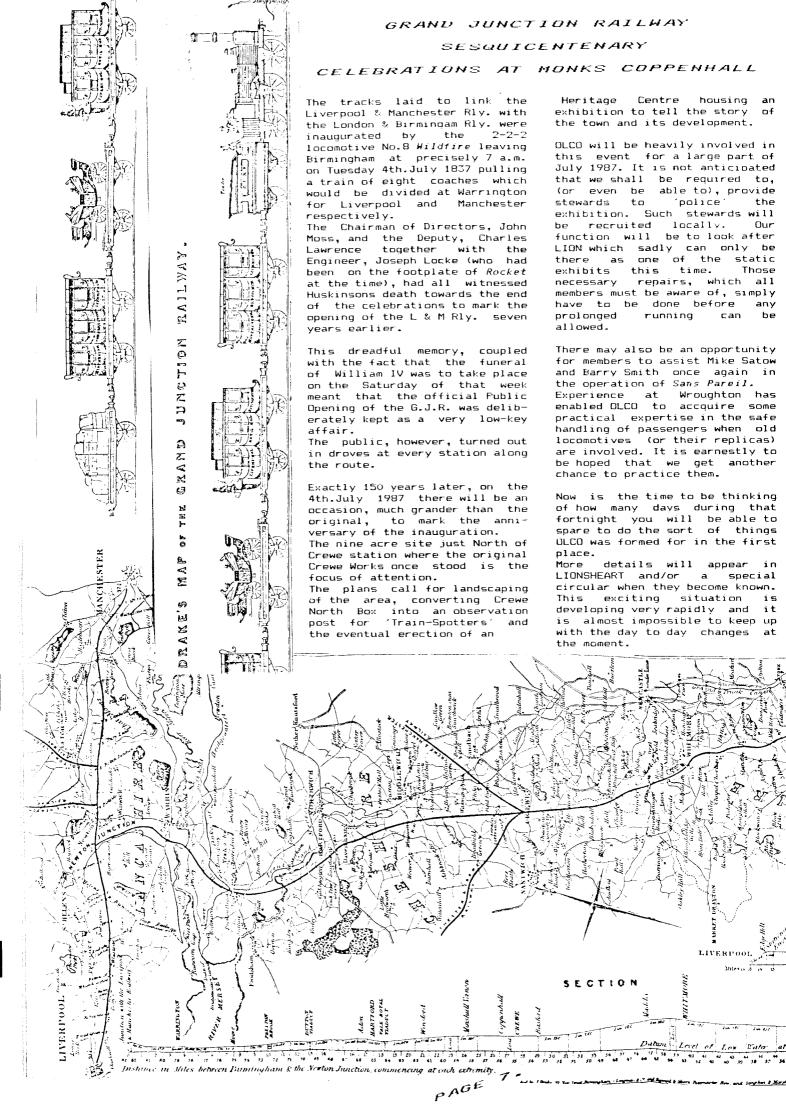
Peter has regretfully had to tender resignation as an Executive Officer of OLCO. Amongst the founders at the inaugural meeting both he and Dorothy have done much to help get OLCO started and we are sad to have lost them both from the Executive.

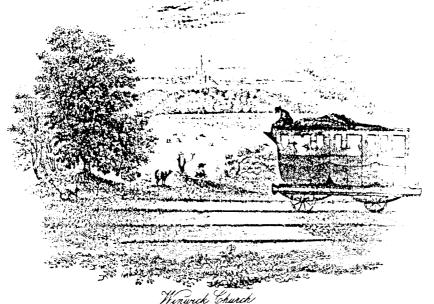
Travel to meetings from Bristol has not been easy but, in spite of one or two health problems, they staunchly persevered and we thank them most sincerely for all they have done.

They have not said goodbye to OLCO and their many friends and we all look forward to seeing them again at our activities in 1987.

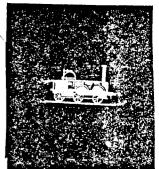
Peter manipulating the firebox door and a shovel to maintain the boiler pressure exactly on the mark, give or take the thickness of the line on the gauge, is a skill few of us can emulate. The cosy comfort of the OLCO 'unofficial HQ.', their ', their caravan, into which they somehow managed to pack the whole gang of us for endless cups of tea will long be remembered with gratitude.

Many thanks Dot and Peter also for your untiring hospitality on so many OLCO 'outings'.





NAVY BLUE TIES WITH A *LION* MOTIF



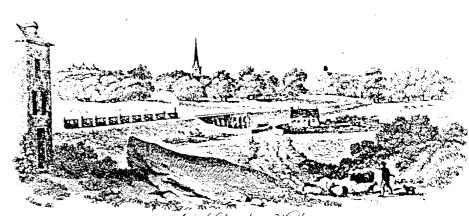
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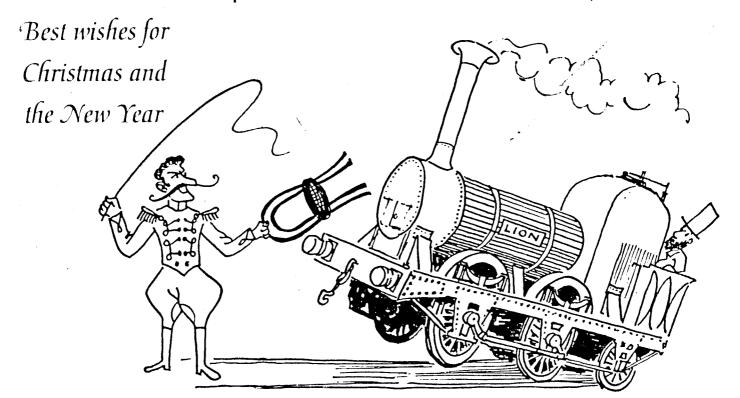


THE SIMULATUR

continued from page 4.



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Stolen from "Four Foot Eight and a Half and All That" with apologies.

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